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Publication number:

**0 427 429 A3**

(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: 90311707.5

(51) Int. Cl.<sup>5</sup>: A61M 25/10

(22) Date of filing: 25.10.90

(30) Priority: 25.10.89 US 426879

(43) Date of publication of application:  
15.05.91 Bulletin 91/20

(84) Designated Contracting States:  
BE DE ES FR GB IT NL

(86) Date of deferred publication of the search report:  
11.09.91 Bulletin 91/37

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(54) Occluding catheter for treating cerebral arteries.

(57) An occlusion catheter for use during therapeutic intervention of a blood vessel for flushing away debris including an elongated guide catheter (20) sized to be introduced into the blood vessel, an occlusion balloon (12) located at or near the distal end of the catheter and an inflation lumen (18) integral with the

guide catheter and communicating with the interior of the balloon enabling the balloon to be inflated to form a seal between the balloon and the blood vessel wall. The balloon is capable of being expanded to at least 5 times its deflated diameter when inflated.

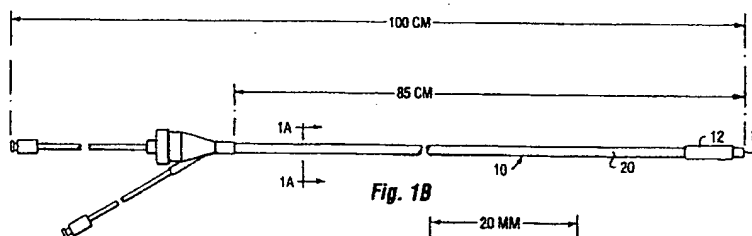


Fig. 1B

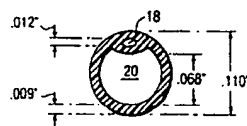


Fig. 1A

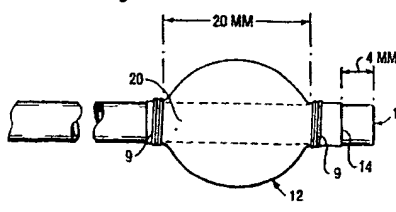


Fig. 1C

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# EUROPEAN SEARCH REPORT

Application Number

EP 90 31 1707

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	EP-A-0 330 376 (BARD) * Figures 9,11; abstract *	1-6	A 61 M 25/10
X	WO-A- 897 413 (TERUMO K.K.) & EP-A-0 402 467	1-3	
X	WO-A- 877 510 (FINA) * Figure 2; page 1, lines 7-11; page 6, lines 24-27 *	1-3	
X	EP-A-0 232 678 (NERACHER) * Figure 3; column 3, lines 52-57; column 8, lines 1-4 *	1-3	
X	WO-A-8 303 356 (WOLINSKY) * Page 6, lines 1-3; figure 2 *	6	
A	US-A-3 485 352 (PILGER) * Item 20; figure 1; column 2, lines 68-69 *	4	
A	US-A-4 295 464 (SHIHATA)		TECHNICAL FIELDS SEARCHED (Int. Cl.5)
E,L	EP-A-0 402 467 (TERUMO K.K.) * Page 12, lines 12,13,19,20; figures 1,2 * Cited as family member of WO-A-89 7413, which was published 24-08-1989		A 61 M A 61 B
P,X	DE-A-3 833 359 (BOCKENHEIMER) * Abstract; figure 2 *	6	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27-05-1991	Examiner BARTON S.A.
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document			



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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid.
- namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### X LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-3: Occlusion balloon catheter.
2. Claims 4,5: Catheter package.
3. Claim 6: Double balloon catheter.

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid.
- namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.
- namely claims: